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Stated Meetings of The American Entomological Society will be held at 8.00 P. M., in 1936, on the fourth Thursday of each month excepting June, July, August, November and December, and on the third Thursday of November and December.

Communications on observations made in the course of your studies are solicited; also exhibits of any specimens you consider of interest.

The printer of the "News" will furnish reprints of articles, without covers, over and above the twenty-five given free at the following rates: One or two pages, twenty-five copies, 35 cents three or four pages, twenty-five copies, 70 cents; five to eight pages, twenty-five copies, $1.40; nine to twelve pages, twenty-five copies, $2.00; each half-tone plate, twenty-five copies, 30 cents; each plate of line cuts, twenty-five copies, 25 cents; greater numbers of copies will be at the corresponding multiples of these rates. Printed covers for 50 copies, $4.00 or more, according to number of pages bound.

ENTOMOLOGICAL NEWS

VOL. XLVII. NOVEMBER, 1936 No. 9

An Interesting New Horsefly from North Carolina (Diptera : Tabanidae).[1]

By CORNELIUS B. PHILIP, Entomologist, U. S. Public Health Service.

Among specimens received from Mr. J. S. Brimley, of Raleigh, North Carolina, an apparently undescribed fly of unusual appearance was found. Three males were also found in the Hine collection by Dr. Alan Stone of the U. S. National Museum and are here included.

Anacimas geropogon n. sp. (Gr., old man + whiskers).

Of the appearance of *"T." dodgei* Whit., but the body, margins of veins and costal cells of wings with a brownish cast, and it lacks the pronounced thoracic lines; face and cheeks, sternum and pleurae, coxae, and basal palpal joint covered with unusually long, white hairs; second palpal joints with long, coarse, porrect hairs, white and black intermixed; antennae rather slender, red, the first two joints with sparse, long black hairs, third almost bare except for a few long upstanding hairs on the dorsal prominence and a very few shorter erect hairs on the annuli; tongue, particularly the labellae, remarkably small; abdomen of female flattened, with a dark brown, mid-dorsal stripe its full length, on either side a pale buff stripe, and a brownish stripe along each edge. The male is readily associated on antennal and other head characters, although the bright orange-brown abdomen shows practically none of the pattern of the female, except sometimes a reduced, elongate, dark spot middorsally on the second segment.

♀. 15 mm. Eyes with very sparse, scarcely discernible short hairs; relaxed, 3 very narrow closely situated purple stripes on a green ground. Front broad, at least one-third its height, sides parallel, light brownish, darker on the vertex; no ocelligerous tubercle; frontal and median callosities piceus, convex, separated narrowly, the former wider than high and narrowed above, the latter bluntly ellipsoid, a little taller than the former and

[1] Contribution from the Rocky Mountain Laboratory, U. S. Public Health Service, Hamilton, Montana.

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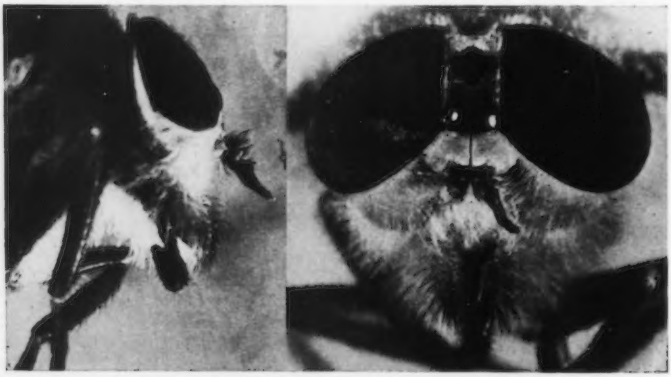
half as wide as high. Subcallus contrasting pale yellowish pollinose. Antennae rather slender, the third joint a little longer than the annuli and the prominence rather rounded, excision shallow; terminal annulus hardly as long as the preceding one. *Thorax* with indications of 2 pale lines, otherwise dark testaceous, covered with rather short brownish hairs, a tuft of white hairs above the base of each wing. Wings dilute brownish, darker on the vein margins and costal border; cell R_5 broadly open, and no stump-vein above. Legs pale reddish, a little darker on the tarsi; femora clothed chiefly with white hairs, a few black ones interspersed. Venter of abdomen pale reddish, heavily pale pilose, a few black hairs on the sixth and seventh sternites.



Head of *Tabanus geropogon* n. sp., female.

Showing tomentose appearance with porrect hairs on tumescent palpi and on antennae basally; also the slender proboscis and unusually small labellae (profile in partial silhouette under blue filter; face under yellow filter; Leica enlargement, "super-pan" film).

♂. 14.5 mm. Eyes with imperceptible, sparse pubescence, the contrasting, pale area of distinctly enlarged facets occupying 2/3 the total area. Vertical triangle buff, pollinose, slightly raised above upper eye level. Terminal palpal joints swollen, hardly twice as long as thick. Outer front tarsal claws a little longer than the inner. Wing veins not so plainly margined; otherwise this sex resembles the female except for the more orange abdomen above and below, which is almost without pattern.

Holotype, ♀. California Beach, NORTH CAROLINA, April 20, 1930, through the kindness of Mr. J. S. Brimley, in excellent state of preservation. In the collection of the author. *Allotype*, ♂. Southern Pines, N. Car., Apr. 19, 1917. In the collection of Ohio State University Museum, Columbus. *Paratypes*. Two males, one with same data as allotype, the other from the same locality, April 7, 1908, A. H. Manee, are like the allotype, except the latter is only 12.5 mm. and there is a more definite dark middorsal spot on the second abdominal tergite. In the collections of the Ohio State and U. S. National Museums.

The female bears a striking superficial resemblance to *Merycomyia mixta* Hine and the rather remarkable head characters show close relationship to *Anacimas dodgei* (Whit). I am indebted to Dr. Stone, who also studied the type of *A. limbellatus* End., for pointing out its generic affinities, as well as for the opportunity of establishment of the allo- and paratypes. The females of all three species of *Anacimas* have a rather broad, middorsal, brownish stripe on the abdomen in addition to small tongues and distinctive vestiture, especially about the head.

Two New Cockle Burr Midges (Diptera: Cecidomyiidae).

By E. P. FELT, Bartlett Tree Research Laboratories, Stamford, Connecticut.

The two species described below were reared by Mr. Leith F. Hitchcock, of the Australian Commonwealth Prickly Pear Board Xanthium Investigations.

Asphondylia xanthii n. sp.

♂. Length 3.5 mm., antennae nearly as long as the body, sparsely haired, dark brown, the third with a length four times its diameter; palpi triarticulate; mesonotum dark brown, the submedian lines thickly haired; scutellum and postscutellum fuscous yellowish; abdomen light brown; halteres fuscous, yellowish basally; legs a somewhat variable yellowish-straw color.

♀. Length 4 mm., antennae about three-fourths the length of the body, the third segment with a length five times its diameter; ovipositor about three-fourths the length of the body,

the basal lobes, so conspicuous in many species, relatively small.

This species runs in our key to *A. autumnalis* Beutm., from which it is distinguished by the nearly uniform color of the legs.

The insects were reared June 4, 1935, from galls on the growing tips of the branches of cockle burr, *Xanthium speciosum*, collected at Navasota, TEXAS. *Holotype* a male.

Mycodiplosis radicis n. sp.

♂. Length 1.25 mm. Antennae one-half longer than the body, thickly haired, the basal enlargements of the flagellate segments dark brown, the distal enlargements yellowish, the fifth segment with the stems three and two and one-half times their diameter respectively; the enlargements, their setae and circumfila normal for the genus, the terminal segment having the basal portion of the stem with a length four times its diameter, the distal enlargement cylindrical, with a length three times its diameter and bearing a stout appendage, swollen near the middle, approximately four times as long as its major diameter.

Mesonotum reddish-brown, the submedian lines yellowish; scutellum pale, yellowish; postscutellum reddish-brown; abdomen dark brown, sparsely haired. Wings fuscous with irregular yellowish areas as in a strongly marked *Lestodiplosis;* halteres and coxae pale yellowish; femora mostly dark brown; tibiae dark brown, with a broad yellowish band basally and near the middle; tarsi dark brown, except that the basal two-thirds of the second, the basal half of the third and fourth and all of the fifth segments are yellowish; claws slender, strongly curved, the anterior unidentate; pulvilli short.

Genitalia: basal clasp segment stout, terminal clasp segment short and stout; dorsal plate short, broad, broadly and triangularly emarginate, the lobes acute; ventral plate short, broad, narrowly emarginate, lobes rounded.

♀. Length 2 mm. Antennae extending to the base of the abdomen, thickly haired, apparently dark brown, though when magnified the basal fourth of the flagellate antennal segments is seen to be fuscous, the distal part yellowish; the fifth segment with a stem one-fourth the length of the cylindrical basal enlargement, the latter with a length three times its diameter; the terminal segment slender, tapering and with a length four times its major diameter. Palpi quadriarticulate, the first segment quadrate, the second rather broad with a length three times its width, the third a little longer and more slender and the fourth one-fourth longer than the third. Mesonotum dark

brown, the submedian lines, scutellum and postscutellum mostly yellowish. Abdomen light brown. Ovipositor half the length of the body, mostly yellowish, the lobes with a length three times the width, somewhat expanded distally. Other characters as in the male.

This species approaches closely *M. alternata* Felt, from which it may be separated by the distinctly longer basal stem of the fifth antennal segment, the darker color of the mesonotum and the uniform coloration of the abdomen.

Reared in August, 1935, from the roots of cockle burr, *Xanthium* sp. collected at Mobile, ALABAMA. *Holotype* a male.

Types deposited in the United States National Museum.

The Coleoptera or Beetles of Georgia. III.

By P. W. FATTIG, Emory University, Georgia.

HISTERIDAE.

(See page 20, this volume)

6565—HISTER LAEVIPES Germ. Albany VII, 30, 31; Atlanta VIII, 15, 29.

6571—H. INTERRUPTUS Beauv. Stone Mt. IV, 28, 27.

6591—H. MARGINICOLLIS Lec. Atlanta VI, 30, 27.

6597—H. CIVILIS Lec. Calhoun V, 23, 31.

6599—H. DISPAR Lec. Jasper, VII, 17, 31.

6613—H. DEFECTUS Lec. Hiawassee VI, 15, 29.

H. SP. Stone Mt. IV, 28, 27.

6651—PLATYSOMA CAROLINUM Payk. Jonesboro V, 12, 30.

6692—EPIERUS REGULARIS Beauv. Waycross V, 15, 32.

6696—E. PULICARIUS Er. Savannah IV, 11, 31; Jesup V, 29, 31.

6790—ACRITUS EXIGUUS Er. Tallapoosa V, 6, 28.

LYCIDAE.

6926—CALOPTERON RETICULATUM Fab. Cleveland VIII, 10, 31; Canton VIII, 17, 31; Atlanta VIII, 5, 32 (2); Kennesaw Mt. VIII, 11, 28; Neel Gap IX, 1, 29.

6931—CELETES BASALIS Lec. Blairsville VI, 15, 29.

6939—EROS AURORA Hbst. Atlanta II, 24, 30 (2); III, 8, 30 (2); III, 15, 29; III, 28, 31.

6940—E. SCULPTILIS Say. Blue Ridge VI, 14, 29.

6941—E. HUMERALIS Fab. Macon IV, 29, 31; Atlanta V, 10, 34 (2).

6942—E. TRILINEATUS *Melsh.* Stone Mt. VI, 18, 30; VII, 25, 29; Yonah Mt. VIII, 5, 34.

6943—E. CRENATUS Germ. Cedartown VI, 25, 32.

6945—PLATEROS MODESTUS Say. Athens VI, 13, 32.

6946—P. CANALICULATUS Say. Brunswick VI, 5, 29.

6950—P. FLORALIS Melsh. Jefferson VI, 13, 32.

P. SP. Stone Mt. VI, 18, 30.

6958—CALOCHROMUS PERFACETUS Say. Jesup VI, 5, 29.

LAMPYRIDAE.

6967—CALYPTOCEPHALUS BIFARIA Say. Stone Mt. V, 24, 27.

6971—LUCIDOTA ATRA Fab. Bremen V, 6, 28; Tallulah Falls V, 13, 31; Neel Gap V, 28, 34; Atlanta V, 30, 29.

6975—L. CORRUSCA Linn. Jefferson VI, 13, 32; Toccoa VII, 3, 31.

6978—L. NIGRICANS Say. Stone Mt. V, 26, 27 (2); Gainesville VI, 3, 27; Kennesaw Mt. VI, 8, 28.

6980—L. MINUTA Lec. Macon IV, 3, 31.

6987—PYRACTOMENA LUCIFERA Melsh. West Point VI, 10, 32.

6988—PHOTINUS CONSANGUINEUS Lec. LaGrange VI, 4, 32.

6994—P. COLLUSTRANS Lec. Folkston V, 8, 32.

6996—P. PYRALIS Linn. Jesup IV, 12, 31; Atlanta V, 10, 34; VI, 19, 30; Perry VI, 21, 28; Helen VII, 11, 34.

6998—P. CASTUS Lec. Rome VI, 20, 32.

7013—PHOTURIS PENNSYLVANICA DeG. Savannah IV, 11, 31; Cornelia V, 16, 28.

PHENGODIDAE.

7023—PHENGODES PLUMOSA Oliv. Neel Gap V, 28, 34; VI, 14, 31.

CANTHARIDAE.

7051—CHAULIOGNATHUS PENNSYLVANICUS DeG. Douglasville V, 6, 28; Blue Ridge VI, 14, 29; Clarkesville VII, 25, 31.

7052—C. MARGINATUS Fab. Atlanta VI, 8, 32; VI, 13, 27; Ringgold VI, 14, 30 (6); Stone Mt. VI, 26, 27; Blairsville VIII, 31, 29 (7); Stone Mt. IX, 5, 32 (4); Atlanta IX, 9, 32 (5).

7055—PODABRUS TRICOSTATUS Say. Hiawassee V, 28, 34.

7056—P. REGULOSUS Lec. Griffin VI, 12, 27.

7057—P. FRATER Lec. Blue Ridge VI, 26, 31.

7058—P. BASILARIS Say. Toccoa VI, 16, 29.

7067—P. PROTENSUS Lec. Blairsville V, 14, 31.

7091—CANTHARIS DENTIGER Lec. Macon IV, 29, 31.

7097—C. CAROLINUS Fab. Cleveland VI, 24, 31.

7098—C. LINEOLA Fab. Toccoa V, 14, 30; Swainsboro V, 31, 31.
7110—C. LONGULUS Lec. Blairsville VI, 15, 29.
7121—C. BILINEATUS Say. Griffin IV, 4, 31.
7137—POLEMIUS LATICORNIS Say. Stone Mt. V, 26, 27 (2).
7147—SILIS DIFFICILIS Lec. Dawsonville V, 15, 31.
7161—S. BIDENTATUS Say. Hawkinsville IV, 3, 31; Toccoa VI, 16, 29.
7169—TRYPHERUS LATIPENNIS Germ. Cornelia VI, 16, 29.
7170—BELOTUS ABDOMINALIS Lec. Folkston V, 8, 32.

MELYRIDAE.

7196—COLLOPS TRICOLOR Say. Stone Mt. IV, 28, 27 (41); Macon IV, 29, 31; Calhoun V, 23, 31.
7207—C. NIGRICEPS Say. Jesup V, 5, 30; Athens VI, 13, 32.
7207a—C. NIGRICEPS FLORIDANUS Schffr. Cairo VI, 18, 31.
7210—C. GEORGIANUS Fall. Rockmart VI, 25, 32.
7227—C. QUADRIMACULATUS Fab. Milledgeville V, 28, 31; Douglasville VII, 15, 27; Atlanta VIII, 9, 31 (2).
7231—TEMNOPSOPHUS BIMACULATUS Horn. Bainbridge VI, 19, 31.
7279—PSEUDEBAEUS APICALIS Say. Hartwell VI, 16, 29.
7300—ATTALUS GRANULARIS Er. Cornelia VI, 16, 29.
7303—A. MORULUS Lec. Jonesboro VI, 12, 27.
7322—A. SCINCETUS Say. Savannah IV, 11, 31; Blue Ridge VI, 26, 31.
7506—MELYRODES CRIBRATA Lec. Hiawassee V, 28, 34.

CLERIDAE.

7516—MONOPHYLLA TERMINATA Say. West Point VI, 10, 32.
7544—CYMATODERA BICOLOR Say. Dahlonega VII, 9, 31.
7545—C. INORNATA Say. Tate VI, 27, 32.
7566—C. UNDULATA Say. Newnan V, 18, 31.
7577—PRIOCERA CASTANEA Newm. Quitman VI, 17, 31.
7585—THANASIMUS DUBIUS Fab. Albany VI, 1, 32.
7596—ENOCLERUS NIGRIPES Say. Neel Gap VI, 14, 31.
7597—E. ROSMARUS Say. Blue Ridge VI, 26, 31.
7605—E. ICHNEUMONEUS Fab. Atlanta VII, 20, 30.
7612—E. LUNATUS Klug. McRae IV, 14, 31; Stone Mt. VI, 21, 27 (2); VI, 26, 27.
7630—TRICHODES APIVORUS Germ. Columbus V 19, 31; Stone Mt. VI, 5, 32; VI, 22, 27 (3); VI, 25, 30; VII, 1, 30; Americus VI, 20, 31; Dalton VII, 24, 31.
7637—HYDNOCERA UNIFASCIATA Say. Stone Mt. V, 25, 28 (2).

7675—H. VERTICALIS Say. Atlanta V, 19, 27.
7694—ZENODOSUS SANGUINEUS Say. Tate VI, 27, 32.

CORYNETIDAE.

7696—PHYLLOBAENUS DISLOCATUS Say. Augusta VI, 9, 32.
7708—CHARIESSA PILOSA Forst. Macon VI, 21, 29.
7716—CREGYA OCULATUS Say. Gainesville VI, 24, 31.

CUPESIDAE.

7744—CUPES CONCOLOR Westw. Sandersville V, 31, 31; Blairsville VII, 10, 31; Atlanta VII, 25, 29.

OEDEMERIDAE.

7758—XANTHOCHROA LATERALIS Melsh. Jasper VII, 17, 31.
7763—NACERDA MELANURA Linn. Jesup V, 5, 30.
7768—COPIDITA NOTOXOIDES Fab. Gray VI, 21, 29.
7769—C. THORACICA Fab. Valdosta IV, 14, 31.
7776—ALLOXACIS DORSALIS Melsh. Savannah IV, 11, 31.
7799—ASCLERA PUNCTICOLLIS Say. Tallapoosa V, 6, 28.
7800—A. RUFICOLLIS Say. Stone Mt. VI, 26, 27.

MORDELLIDAE.

7810—MORDELLA MELAENA Germ. Atlanta VI, 12, 27; Cartersville VII, 4, 34; Stone Mt. VII, 12, 29 (3); VII, 17, 29 (4); Americus VII, 30, 31.
7811—M. SCUTELLARIS Fab. Ellijay VI, 27, 31.
7814—M. OCTOPUNCTATA Fab. Fort Valley VI, 1, 31; Dalton VI, 7, 31; Atlanta VI, 7, 28; VI, 12, 27; Stone Mt. VI, 13, 34; Americus VI, 20, 31; Kennesaw Mt. VI, 24, 34.
7817—M. MARGINATA Melsh. Talking Rock VI, 27, 32.
7830—GLIPODES HELVA Lec. Gainesville VIII, 16, 29.
7833—MORDELLISTENA BICINCTELLA Lec. Fort Valley VI, 1, 31.
7838—M. TRIFASCIATA Say. Cornelia VI, 16, 29; West Point VI, 19, 32.
7859—M. COMATA Lec. Swainsboro V, 31, 31.
7875—M. SEMIUSTA Lec. Tate VI, 27, 32.
7894—M. AMBUSTA Lec. Thomasville VI, 19, 31.
7910—M. PUBESCENS Fab. Perry VI, 21, 29; Ellijay VI, 27, 31.
7911—M. BIHAMATA Melsh. Covington VI, 16, 27.
7912—M. LITURATA Melsh. Blairsville VI, 15, 29.
7913—M. FUSCATA Melsh. Yonah Mt. VII, 12, 34.
7926—M. DISCOLOR Melsh. Calhoun VI, 28, 32.
7942—ANASPIS FLAVIPENNIS Hald. Blairsville VI, 15, 29.
7943—A. RUFA Say. Savannah IV, 11, 31; Hartwell VI, 13, 32.

RHIPIPHORIDAE.

7950—MACROSIAGON DIMIDIATUM Fab. Hawkinsville VI, 21, 29; Dalton VII, 24, 31.

7953—M. PECTINATUM Fab. Augusta VI, 9, 32.

7954—M. CRUENTUM Germ. Stone Mt. VII, 14, 29; VIII, 10, 32; Ringgold VIII, 5, 31.

7956—M. LIMBATUM Fab. Americus VII, 30, 31.

M. SP. Atlanta VIII, 14, 29.

MELOIDAE.

7973—PYROTA ENGELMANNI Lec. Ringgold VIII, 5, 31; Atlanta IX, 5, 30; IX, 17, 27.

7981—P. GERMARI Hald. Hartwell VI, 14, 32.

7986—P. LINEATA Oliv. Clarkesville VII, 25, 31.

7989—POMPHOPOEA POLITA Say. Baxley VII, 22, 29.

7990—P. AENEA Say. Atlanta IV, 7, 33; IV, 8, 31; IV, 29, 31; Macon IV, 29, 31.

7998—EPICAUTA TRICHRUS Pallas. Stone Mt. VI, 22, 27; VI, 26, 27; Cartersville VII, 24, 31; Clayton VIII, 17, 29; Atlanta IX, 4, 32 (2).

8000—E. STRIGOSA Gyll. Augusta VIII, 29, 30.

8003—E. HETERODERA Horn. Americus VI, 20, 31.

8018—E. VITTATA Fab. Atlanta VII, 7, 31 (3); Dalton VII, 24, 31.

8019—E. LEMNISCATA Fab. Folkston V, 8, 32.

8024a—E. CINEREA MARGINATA Fab. Macon VI, 21, 29; LaFayette VII, 17, 31; Stone Mt. VII, 30, 29 (17); VIII, 7, 32 (12); VIII, 9, 28 (28); Waleska VIII, 28, 28 (2); Atlanta VIII, 28, 32 (2).

8033—E. PENNSYLVANICA DeG. Cornelia VI, 28, 31; Rome VIII, 3, 31; Neel Gap IX, 1, 29; Atlanta IX, 4, 32.

8042—MACROBASIS UNICOLOR Kby. Griffin V, 12, 30; Dalton V, 23, 31; Hiawassee V, 28, 34; Stone Mt. VI, 2, 28 (48).

8112—TETRAONYX QUADRIMACULATA Fab. Stone Mt. VII, 10, 29 to VIII, 10, 29 (125); Americus VII, 30, 31; Helen VIII, 5, 34; Kennesaw Mt. VIII, 11, 28; LaFayette VIII, 16, 31.

8167—GNATHIUM FRANCILLONI Kirby. Atlanta VIII, 23, 32.

8179—NEMOGNATHA PIEZATA Fab. Fort Valley VI, 1, 31; Snellville VI, 12, 31; Gainesville VI, 24, 31; St. Simons Island VII, 22, 29; Albany VII, 30, 31; Yonah Mt. VIII, 5, 34 (2); Atlanta VIII, 5, 32 (9); VIII, 19, 29 (3); VIII, 21, 32 (8).

8180—N. PUNCTULATA Lec. Cleveland VII, 10, 31.

N. SP. Yonah Mt. VIII, 5, 34 (2).

PYROCHROIDAE.

8220—NEOPYROCHROA FLABELLATA Fab. Toccoa VI, 16, 29.
8225—DENDROIDES BICOLOR Newm. Stone Mt. IV, 28, 27.

PEDILIDAE.

8278—MACRATRIA CONFUSA Lec. Cornelia VI, 16, 29.
8279—M. MURINA Fab. Dahlonega VII, 9, 31.

ANTHICIDAE.

8283—NOTOXUS BICOLOR Say. Clarkesville V, 28, 34.
8304—N. MONODON Fab. Gainesville VI, 24, 31.
8359—ANTHICUS STURMI Laf. Toccoa VI, 16, 29.

EUGLENIDAE.

8475—ELONUS BASALIS Lec. Savannah IV, 11, 31.
8477—EMELINUS MELSHEIMERI Lec. Rockmart VIII, 17, 28.

CEBRIONIDAE.

8516—CEBRIO BICOLOR Fab. Atlanta VII, 29, 27; VIII, 9, 29 (2).

Notes on Some Spiders of the Family Pisauridae (Araneae).

By S. C. BISHOP, University of Rochester, and
C. R. CROSBY, Cornell University.

Since the publication by one of us (Bishop, 1924), of the Revision of the Pisauridae of the United States, a number of specimens have come to hand which provide material for the description of four males not previously known.

Several specimens of *Dolomedes pinicola* Hentz were received from Mr. Stanley Mulaik of Edinburg, Texas, and Dr. W. J. Gertsch of the American Museum has sent us specimens of *Thanatidius dubius* Hentz, *Dolomedes striatus* Giebel and *Thaumasia peregrina* Bishop. The records of a few additional species are added.

Key to the Males of Dolomedes.

1. A spinose hump on the femur of the fourth leg beneath 2
   No spinose hump on the femur of the fourth leg beneath 3
2. Tibial apophysis very long, extending almost one-half the length of the bulb *triton* Walckenaer
   Tibial apophysis short, extending only to the base of the bulb *vittatus* Walckenaer
3. Median apophysis of bulb broad, produced to a point near

the tip on the side toward the embolus 4
Median apophysis of bulb slender, distal half narrow, ribbon-like, almost transparent 7

4. Median apophysis of bulb constricted at base 5
Median apophysis of bulb broad throughout; tibial apophysis wide and ear-like *striatus* Giebel

5. Apophysis of tibia broadly dilated and deeply notched distally 6
Apophysis of tibia short, concave internally, broadly notched at tip; venter of abdomen with a definite median, light stripe from the genital furrow to the spinnerets; abdomen above white or grayish white marked with light brown *albineus* Hentz

6. A tooth at the base of tibial apophysis on the ventral side; abdomen above dull yellow without definite dark markings *pinicola* Hentz
No tooth at the base of tibial apophysis on the ventral side; abdomen above crossed by several transverse, W-shaped white lines *scriptus* Hentz

7. Median apophysis acutely angled at middle of its length; basal half abruptly swollen in the middle *tenebrosus* Hentz
Median apophysis nearly right-angled at middle of its length; basal half not conspicuously swollen *okefinokensis* Bishop

DOLOMEDES PINICOLA Hentz (Figure 1).

Micrommata pinicola Hentz, Jour. Bost. Soc. Nat. Hist. 6:287, pl. 10. fig. 14. 1850.

Dolomedes pinicola Bishop, N. Y. State Mus. Bul. No. 252, pp. 60-61, pl. 35. 1924.

Teippus lamprus Chamberlin, Proc. U. S. Nat. Mus. 63:28. 1924.

The male has not been described. Hentz had only the female, as indicated in his figure, and Bank's specimen was an immature female. The specimen described by Chamberlin as *Teippus lamprus* is a young individual less than half grown.

♂. Length, 10 mm. Cephalothorax, length, 5 mm., width, 4.5 mm. Cephalothorax with the ground color orange yellow, on either side of the mid-dorsal line a broad dusky band with a narrow anterior extension enclosing a light oval area back of the eyes, extreme margins slightly dusky; the light areas of the sides of the thorax clothed with soft white hairs, the light area back of the eyes and the dusky bands clothed with brown

hairs; extreme margin of the cephalothorax and median ocular area clothed with long white hairs directed forward. Viewed from above, the cephalothorax is broad, evenly rounded on the sides to the posterior eyes then sharply converging to the rather truncated front; viewed from the side, the posterior declivity short and steep, then gently rounded over to the cervical groove, top of head flat and nearly level.

Posterior eyes in a strongly recurved line, equal, the median separated by three-fourths the diameter and from the lateral by the diameter. Anterior eyes in a very slightly recurved line, the median larger than the lateral, separated by two-thirds the diameter and from the lateral by one-third the diameter. Median ocular area broader than long, height of clypeus two and one-half times the diameter of an anterior median eye. Chelicera orange yellow, lower margin of the furrows with three teeth on one and four on the other.

Abdomen above yellowish white, finely reticulated and with a median, basal, lanceolate area smooth, followed by two rows of small brown spots slightly converging and decreasing in size posteriorly. Sides of abdomen dull yellowish, clothed with short white hairs; venter yellowish and clothed as on the sides; back of the epigastric furrow a broad white area, widest in front, converging posteriorly and marked with two indistinct lines of brown dots extending to the spinnerets.

Legs and palpi dusky orange yellow, the legs in order of length 1-4-2-3; 29-27-25-21 mm. respectively; tibiae of first and second legs beneath with 4-4 spines, the apical short, others long but not overlapping. Sternum orange-yellow with a broad submarginal dusky band. Labium and endites orange yellow.

Tibia of palpus moderately long and stout, the distal mesoventral angle produced into a broad lobe; the apophysis broadly attached at base, deeply excavated distally and armed at base on the ventral side with a short, curved black tooth. The tegulum is roughly horseshoe-shaped, the distal arm longer and broader than the ventral; the median apophysis narrow at base, widened distally and expanded into a thin transparent flange which is drawn out to a beak-like point on the lateral side; the long, slender, whip-like embolus arises at the back of the bulb and curves forward and ventrally, its tip resting in the groove of the fulcrum and covered by the membranous conductor.

By the form of the tibial apophysis and the structure of the bulb, this species is evidently related to *Dolomedes albineus* and *D. scriptus*.

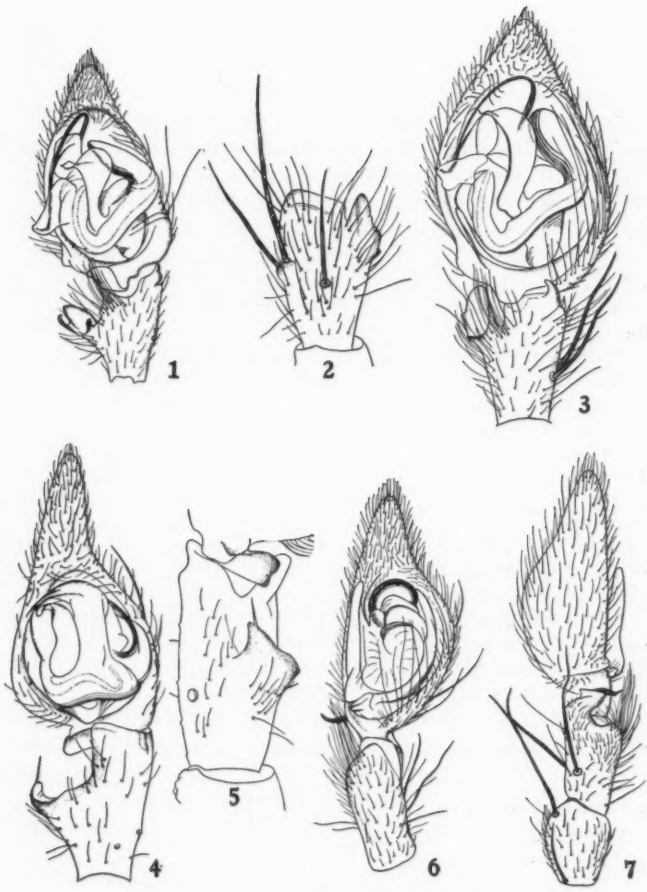


Fig. 1. *Dolomedes pinicola*, ♂, right palpus, ventral view. 2, *Dolomedes striatus*, ♂, tibia of right palpus, dorsal view. 3. Same, right palpus, ventral view.

Fig. 4. *Thanatidius dubius*, ♂ right palpus, ventral view.

5. Same, ♂, tibia of right palpus, dorsolateral view. 6. *Thaumasia peregrina*, ♂, right palpus, ventral view. 7. Same, dorsolateral view.

TEXAS: Edinburg, Sept.-Oct., 1933, 1 ♂ (Mulaik) (*Allotype*). FLORIDA: Wewahitchka, Dead Lake, April 6, 1927, 1 ♀ (Crosby).

DOLOMEDES STRIATUS Giebel (Figures 2-3).

Dolomedes striatus Giebel, Zeit. Ges. Natur. 33:252. 1869.

Dolomedes striatus Bishop, N. Y. State Mus. Bul. No. 252, pp. 57-59, pl. 33, fig. 1, pl. 34, fig. 2. 1924.

The male resembles the female closely in color and pattern but is a little smaller.

♂. Length, 11 mm. Cephalothorax, length 5.5 mm., width, 4.5. Legs 4-1-2-3; 24-22-21-19. long respectively; tibiae of first and second legs beneath with 4-4 spines, the apical short, the others long and overlapping.

Femur of the palpus long and slender, somewhat compressed at base and slightly widened distally; armed above with a transverse, curved row of four dark spines just back of the tip, followed by a row of three spines along the mid line; patella short and with the sides nearly straight, slightly convex above and armed above at base with a long slender black spine; tibia slender at base, evenly widened distally, produced at the tip ventromesally into a distinct tooth-like projection and dorsolaterally into a broad ear-shaped apophysis diagonally truncate at tip; tibia armed above at the middle of its length with a single long black spine and mesally by a pair of black spines.

In the form and position of the tegulum and embolus, this species closely resembles *D. pinicola;* the median apophysis, however, is of nearly uniform width throughout and the tip on the lateral side is a much sharper point.

Since this species was reinstated in 1924, a number of additional specimens have been found. NEW YORK: Mendon Ponds, Monroe Co., Sept. 28, 1928, 1 juv. ♂ (Bishop). CONNECTICUT: Norwalk, June 4, 1933, 1 ♂ (*Allotype*); July 10-11, 1933, 1 ♂ (Gertsch). NEW JERSEY: *Ramsey*, July 9, 1934, 1 ♀; Sept. 24, 1934, 1 ♀ (Gertsch).

THANATIDIUS DUBIUS Hentz (Figures 4-5).

Thomisus ? dubius Hentz, Bost. Soc. Nat. Hist. Jour. 5:448, pl. 23, fig. 11. 1847.

Thanatidius dubius Simon, Hist. Nat. Araignées 2:288, 293. 1898.

Thanatidius dubius Bishop, N. Y. State Mus. Bul. No. 252, pp. 17-18, pl. 1, pl. 33, fig. 2. 1924.

We have seen only one male of this species, a specimen in which the abdomen is lacking. Dr. W. J. Gertsch has compared this specimen with one from Southern Pines, North Carolina, and found them to be identical and there are several males in the collection of the Museum of Comparative Zoology at Cambridge from the same locality.

♂. Cephalothorax, length, 4.5 mm.; width, 3 mm. The cephalothorax has the characteristic markings of the female. They consist essentially of a broad, median, brown band in which there is a light line through the dorsal groove; the light line widens anteriorly to the width of the ocular area then narrows and passes between the posterior median eyes; sides of the cephalothorax dull yellowish. The eyes are in four rows as in the female but the posterior lateral and median eyes are slightly larger than the anterior. The legs are too much broken to determine the relative lengths.

Femur of palpus rather long and slender, somewhat widened distally; patella short, convex above; tibia viewed from above, narrow at base and with the mesal side nearly straight, strongly protuberant on the lateral side, at the middle of the length, where the apophysis is borne; apophysis a broad, black, shovel-shaped process bearing on its dorsomesal angle a long sharp spine. Base of cymbium, on the lateral side with a low rounded protuberance ventrad of which there is a longer, heavier process. The bulb of the palpus is comparatively simple; the embolus arises on the mesal side, makes a half-turn around the bulb next to the cymbium and emerges near the tip on the lateral side.

TEXAS: Edinburg, 1 ♂ (Mulaik) (*Allotype*). NORTH CAROLINA: Southern Pines, June 1920, 1 ♂ (W. T. Davis). MISSISSIPPI: Ocean Springs, Jan. 1905, 1 ♀ (Comstock).

THAUMASIA PEREGRINA Bishop (Figures 6-7).

Thaumasia peregrinus Bishop, N. Y. State Mus. Bul. No. 252, pp. 62-63, pl. 36, pl. 37, fig. 1-4. 1924.

The male of this species closely resembles the female in form, color and pattern. The size, and the proportions of the body and legs are somewhat different as indicated below.

♂. Length, 10 mm. Cephalothorax, length, 5 mm., width, 4 mm. Legs in order of length, 4-(1-2)-3, 37-34-34-29 mm. long respectively; tibiae of first and second legs beneath with

4-4 spines, the distal pair short, the others long but not overlapping.

Femur of palpus narrow at base, concave on the mesal side and widened distally, marked above near the middle of its length by an indistinct grayish patch and armed above with six long, stout, black spines, four forming a transverse curved line near the tip of the segment, the other two in the mid-line near the middle of the length; patella short, stout, strongly convex above and armed above near base with a slender black spine and distally by a very long, stout, sinuous, black spine; tibia narrower than patella and with the sides nearly straight, armed above at base with a pair of long black spines and on the mesal side at base by a basally stout, apically slender black spine set at right angle to the segment; the tip of the tibia above strongly compressed and produced into a long point from the lateral side of which the tibial apophysis extends laterally at nearly a right angle; the tip of the apophysis is slender, flattened and curved forward.

The bulb of the palpus differs markedly from that of other genera of Pisauridae and in the absence of sufficient material to permit the expansion of a palpus for detailed study, the parts are difficult to homologize. The tegulum is narrow and is exposed only at the base of the bulb; the embolus is a stout, black, sharply curved rod which arises at the back of the bulb, makes one complete turn around the end, the tip emerging on the lateral side above a long stout process which extends the entire length of the bulb on the lateral side.

The *type* of the species, a female, was taken at Hot Springs, Arkansas. Texas: Rio Grande City, Starr Co., July, 1934, 1 ad. ♂, (Allotype) 1 juv. ♂, 1 juv. ♀ (Mulaik).

The following new records are of interest:

Pelopatis undulata Keyserling. Mississippi: Ocean Springs, July 13, 1930, 1 ♀ (Dietrich). Florida: Gainesville, Mar. 4, 1933 (Wallace).

Pisaurina brevipes Emerton. New York: Lake Sebago, Interstate Park, July 23, 1934, ♀ ♀ (Gertsch). New Jersey: Ramsey, Aug. 26, 1934, ♀ ♀ (Gertsch).

Dolomedes okefinokensis Bishop. Florida: Gainesville, Jan. 24, 1933, 1 ♀ (Wallace); Mar. 4, 1933, 1 ♀ (Wallace).

Dolomedes albineus Hentz. Florida: Gainesville, Jan. 29, 1932, 1 ♂; Jan. 11, 1933, 1 ♀; Nov. 23, 1933, 1 ♀ (all Wallace).

Some Synonymy in the Chloropid Genera Hippelates and Diplotoxa (Diptera).*

By Curtis W. Sabrosky, Michigan State College, East Lansing, Michigan.

In view of the increasing medical importance of *Hippelates*, special attention has been directed to the changes in nomenclature in this genus. The author is now working on a monographic revision of the genus and its relatives, and detailed notes and redescriptions will be reserved for that more extensive treatment.

Hippelates circumdata (Becker). New combination.

1912. *Siphonella circumdata* Becker, Ann. Mus. Nat. Hung., X, p. 185. (Chloropidae, V). [Haiti.]

The species is really a *Hippelates*, as I found upon examination of the female holotype [Colln. Melander]. It is very close to *Hippelates peruanus* Becker. It has just come to my attention that Dr. H. W. Kumm recently (Bul. Ent. Research, XXVII, p. 318) referred *circumdata* to synonymy under *Hippelates peruanus* Becker, apparently upon the advice of Dr. Curran, to whom I mentioned the real status of *circumdata* following my study of the type in June, 1935.

Hippelates dissidens (Tucker). New combination.

1908. *Oscinis dissidens* Tucker, Ent. News, XIX, p. 274.

1912. *Oscinella particeps* Becker, Ann. Mus. Nat. Hung., X, p. 115, in part. New synonym.

1913. *Hippelates texana* Malloch, U. S. Natl. Mus. Proc., XLVI, p. 251. New synonym.

The holotype male of *Oscinis dissidens* Tucker was found to be a *Hippelates*, and comparison with the type series of *Hippelates texana* Malloch showed that the latter is an absolute synonym. Types of both species are in the U. S. National Museum. A portion of the type series of *Oscinella particeps* was

* The author has studied the types of all species herein mentioned, and he is pleased to acknowledge the aid of Grant No. 352 of the Bache Fund of the National Academy of Sciences for making this possible.

also found to belong to *dissidens,* as discussed under the next heading.

HIPPELATES PARTICEPS (Becker). New combination.

1912. *Oscinella particeps* Becker, Ann. Mus. Nat. Hung., X, p. 115.

1913. *Hippelates subvittata* Malloch, U. S. Natl. Mus. Proc., XLVI, p. 251. New synonym.

Becker described *particeps* from a series of four specimens in Melander's collection, including one male from Pennsylvania (labeled "type" in the collection), and females from Galveston and Austin, Texas, and Alabama.

The male, [Penn.], which agrees with the original description and is therefore designated here as the type of *particeps,* is unmistakably the same species which Malloch described the following year as *subvittata.* The latter therefore becomes an absolute synonym. The three females are also *Hippelates,* but belong to the species described as *Oscinis dissidens* by Tucker and as *Hippelates texana* by Malloch (see under *dissidens*). From the description, it is evident that Becker regarded the specimen agreeing with *subvittata* as typical of his species, a conclusion which is borne out by two specimens from Haiti in Melander's collection, labeled "det. Becker" (metatypes).

OPETIOPHORA STRAMINEA Loew. Coquillett (1898, Jour. N. Y. Ent. Soc., VI, p. 44) placed this species in the genus *Hippelates,* to which it has since been referred. The genus *Opetiophora* was raised to full generic rank by Sabrosky (1935, Trans. Amer. Ent. Soc., LXI, p. 239).

LASIOPLEURA LONGULUS (Becker). New combination.

1912. *Hippelates longulus* Becker, Ann. Mus. Nat. Hung., X, p. 89.

1913. *Hippelates longulus;* Malloch, U. S. Natl. Mus. Proc., XLVI, p. 264. (Species not identified; description repeated.)

1931. *Hippelates longulus;* Aldrich, Ent. Soc. Wash. Proc., XXXIII, p. 71. (Locality Grenada, not Canada, Becker in error.)

Aldrich (loc. cit.) believed that the species, which was described from a lone female in his collection, was merely *Pseudohippelates capax* (Coq.). The type is undoubtedly congeneric with *capax,* recently placed by Malloch (1934, Dipt. Patagonia & S. Chile, VI, p. 417) in *Lasiopleura* Becker, but the author believes that it represents a distinct species. *Capax* is somewhat larger, and the basal halves of all femora are yellowish, whereas in *longulus* the legs are entirely black.

DIPLOTOXA MESSORIA (Fall.)

1820. *Oscinis messoria* Fallén, Dipt. Suec., Oscinides, p. 5.

1866. *Diplotoxa messoria;* Loew, Ztschr. Ent. Breslau, XX, p. 66.

1903. *Chlorops bilineata* Adams, Kans. Univ. Sci. Bul., II, p. 40. New synonym.

The holotype male of Adams' species has been studied by the writer at the University of Kansas, and it is unquestionably the same species which occurs widely throughout northern United States, Canada and Europe. A considerable series of North American specimens and some European ones have been examined, and no difference could be noted.

DIPLOTOXA CONFLUENS Loew.

1872. *Chlorops (Diplotoxa) confluens* Loew, Berl. Ent. Ztschr, XVI, p. 107. (Cent. X, no. 94.) [Texas.]

1912. *Diplotoxa glabricollis* Becker *nec* Thomson, Ann. Mus. Nat. Hung., X, p. 40. (Chloropidae IV.) [Texas, Illinois.] New synonym.

1912. *Diplotoxa inclinata* Becker, Ann. Mus. Nat. Hung., X, p. 43. [Texas.] New synonym.

Meigen (1820, Syst. Beschr., VI, p. 141) described a *Chlorops confluens,* but inasmuch as Loew's species was definitely placed in his subgenus *Diplotoxa,* later raised to generic rank, I do not regard it as a homonym which requires changing. Becker (1910) believed that *confluens* Meigen was really a synonym of *Chloropisca trifasciata* Zett.

The holotype female of *inclinata,* from Austin, Texas (Colln. Melander) is an absolute synonym of *confluens.* Becker described the third antennal segment as being entirely black, but

on the type only the distal half is black. It has been the author's observation that this character is quite variable in many species of Chloropidae. In spite of this fact, the character is often used as a primary basis for separating species in this family. In the series of eight cotypes of *confluens* in the Museum of Comparative Zoology at Harvard University, the color of the third antennal segment ranges from almost entirely black to only the distal half blackened.

The specimens from Austin, Texas, and Chicago, Illinois, recorded by Becker (1912, p. 40) as *glabricollis* Thomson, were examined and found to be typical *confluens*. It seems extremely improbable that *glabricollis* (type locality, Buenos Aires) occurs in North America. The author has examined a long series of specimens from several localities in Chile, [U. S. Natl. Mus. Colln.], and he agrees with Malloch (1934, Dipt. Patagonia & S. Chile, VI, p. 397) that these probably belong to the species which Thomson described (1868, Eugenies Resa, p. 604). Becker's South American records (Chloropidae V, p. 137) of *glabricollis* are more probably correct, although from Duda's brief notes it is possible that *Diplotoxa rufomarginata* Duda 1930 (= *D. glabricollis* Becker, in part) may be a distinct form.

Biography of Benjamin Dann Walsh.

Volume XIX (Troye-Wentworth) of the Dictionary of American Biography, published under the auspices of the American Council of Learned Societies by Charles Scribner's Sons, September 11, 1936, contains a biography of the eminent Anglo-American entomologist, B. D. Walsh, by Dr. L. O. Howard, pp. 388-389.

Change of Address.

R. C. Shannon is now at Caixa Postal 49, Rio de Janeiro, Brazil.

Head of Department of Entomology at Cornell.

Dr. O. A. Johannsen has become head of the department of entomology at Cornell University, taking the place of Dr. J. G. Needham, retired.—*Science*, July 24, 1936.

Entomological Literature

COMPILED BY V. S. L. PATE, LAURA S. MACKEY and E. T. CRESSON, Jr.

Under the above head it is intended to note papers received at the Academy of Natural Sciences, of Philadelphia, pertaining to the Entomology of the Americas (North and South), including Arachnida and Myriopoda. Articles irrelevant to American entomology will not be noted: but contributions to anatomy, physiology and embryology of insects, however, whether relating to American or exotic species will be recorded.

The figures within brackets [ ] refer to the journal in which the paper appeared, as numbered in the list of Periodicals and Serials published in our January and June issues. This list may be secured from the publisher of ENTOMOLOGICAL NEWS for 10c. The number of, or annual volume, and in some cases the part, heft, &c. the latter within ( ) follows; then the pagination follows the colon :

All continued papers, with few exceptions, are recorded only at their first installments.

(*) Papers containing new forms or names not so stated in titles, have an * within parentheses thus (*) following the pagination of reference to paper.

(S) Papers pertaining exclusively to neotropical species, and not so indicated in the title, have the symbol (S) at the end of the title of the paper.

For records of Economic Literature, see the Experiment Station Record, Office of Experiment Stations, Washington. Also Review of Applied Entomology, Series A, London. For records of papers on Medical Entomology, see Review of Applied Entomology, Series B.

Note. Titles of papers containing new forms or new names will be indicated by an asterisk within parentheses at end of reference, (*).

Papers published in the Entomological News are not listed

New Titles of Periodicals and Serials Referred to

14. Archivos do Instituto Biologico, Sao Paulo.

GENERAL.—Comon, R.—Etude sur la repartition des insectes. Causes d'apparition ou disparition. [Bull. Soc. Sci. Hist. & Nat. Yonne] 88: 46-52. **Pycraft, W. P.**—Some plant bugs and their amazing shapes. [Illus. London News] 1936: 52. **Ruediger, E.**—Jan Swammerdamm und die rolle der insekten in der biologischen forschung. [17,] 53:509-12. **Stateloff, N.**—Die grundlagen der modernen insektenepidemiologie. [Bull. Soc. Ent. Bulgarie] 9: 69-130, ill. [Russian; German summary.] **Wolcott & Otero.**—Insectae Borinquenses. A revised annotated check-list of the insects of Puerto Rico, with a host plant index. [Jour. Agric. Univ. Puerto Rico.] 20: 627 pp., ill.

ANATOMY, PHYSIOLOGY, ETC.—Berge, S.—A new hereditary deformation of thorax of Drosophila melanogaster. [Meldinger Norges Landbrukshoiskole] 16: 470-486, ill. **Coker, Millsaps & Rice.**—Swimming plume and claws of the broad-shouldered water-strider Rhagovelia flavicincta (Hemiptera). [19] 31: 81-85, ill. **Feshotte, L.**—On the effect of radio waves and ultra-violet rays on the insects. [Inst. Plant Protection USSR] Fasc. 6: 147-158. (Russian.] **Fisher, R. A.**—The effect of a few toxic substances upon

the total blood cell count in the cockcoach, Blatta orientalis. [7] 29: 335-340. **Flanders, S. E.**—Sexual dimorphism of Hymenopterous eggs and larvae. [68] 84: 85. **Flemion & Hartzell.**—Effect of low temperature in shortening the hibernation period of insects in the egg stage. [Contrib. Boyce Thompson Inst.] 8: 167-173. **Fox, D. L.**—Structural and chemical aspects of animal coloration. [90] 70: 477-493, ill. **Hamner, A. L.**—The gross anatomy of the alimentary canal of Solubea pugnax (Pentatomidae). [43] 36: 157-160, ill. **Klein-Krautheim, F.**—Ueber das Chorion der Eier einiger Syrphiden. [97] 56: 323-329, ill. **Klinger, H.**—Die insektizide Wirkung von Pyrethrum- und Derrisgiften und ihre Abhängigkeit vom Insektenkörper. [110] 3: 115-151, ill. **Mannheims, B. J.**—Beitrage zur Biologie und Morphologie der Blepharoceriden (Dipt.) Robert Noske, Leipzig, 1935. vi + 116 pp., ill. **Menusan, H.**—The influence of constant temperatures and humidities on the rate of growth and relative size of the bean weevil, Bruchus obtectus. [7] 29: 279-288, ill. **Moriwaki, D.**—A preliminary experiment on crossing over in the female of Bombyx mori. [Proc. Imp. Acad. Sci. Tokyo] 11: 453-454. **Oosthuizen & Shephard.**—Prothetely in larvae of the confused flour beetle, Tribolium confusum. [7] 29: 268-272, ill. **Picard, F.**—Un cas de poecilandrie chez un Hymenoptere Chalcidide, Podagrion pachymerum, parasite de la Mantis religieuse. [Bull. Soc. Zool. France] 60: 468-472, ill. **Ritcher, P. O.**—Host relationships of the Larger Apple Curculio, Tachypterellus quadrigibbus magnus. [103] 9: 94-99. **Savory, T. H.**—Regeneration in Arachnida. [31] 138: 550. **Shull, W. E.**—Inhibition of coagulation in the blood of insects by the fatty acid vapor treatment. [7] 29: 341-349, ill. **Vachon, M.**—Une particularite dans le developpement d'un pseudoscorpion, Cheiridium museorum. [Bull. Soc. Zool. France] 60: 330-333. Sur le developpement post-embryonnaire des pseudoscorpiones. [Bull. Sci. Bourgogne, Dijon] 5: 21-29, 149-150, 154-155, 160-161, 169, 180-181, ill. **Vimmer, A.**—Sur l'adaptation de stigmates des larves de dipteres contre la penetration de la poussiere dans le systeme tracheen. [Casopis] 32: 99-102, ill. Ueber die Fanoni pharyngei, Batelli, im pharynx von dipterenlarven. [Casopis] 32: 198-202, ill. **Wadley, F. M.**—Development-temperature correlation in the green-bug (Toxoptera graminum). [47] 53: 259-266. **Zavrel, J.**—Endokrine Hautdrusen von Syndiam-

esa branocki (Chironomidae). [Publ. Fac. Sci. Univ. Masaryk, Brno] no. 213, 18 pp., ill.

ARACHNIDA AND MYRIOPODA.—Mueller, J. F.—Notes on some parasitic copepods and a mite, chiefly from Florida fresh water fishes. [Am. Midl. Nat.] 17: 807-815, ill. **Pearse, Patterson, Rankin & Wharton.**—The ecology of Passalus cornutus, a beetle which lives in rotting logs. [Ecological Monogr.] 6: 457-490, ill.

ORTHOPTERA.—Schneider, H.—Die sudamerikanische wanderheuschrecke (Schistocerca paranensis) eine schwere insektenplage. [17] 53: 481-487.

HEMIPTERA.—Coblentz, W. W.—The emergence of the cicada. [Scientif. Monthly] 43: 239-243, ill. **Deay & Gould.**—The Hemiptera of Indiana. I. Fam. Gerridae. [The Amer. Midland Nat.] 17: 753-769, ill. **Drake & Harris.**—Notes on North American Water-striders. [95] 49: 105-108 (S*). **Gilliatt, F. C.**—Observations on the mealy bug, Phenacoccus aceris. [4] 68: 133. **Jaczewski, T.**—Notes on Corixidae. [107] B, 5: 34-43, ill. **Neiva & Lent.**—Notas e commentarios sobre triatomideos. Lista de especies e sua distribuicao geographica. [105] 6: 153-190. **Simanton & Andre.**—A biological study of Lygaeus kalmi (Lygaeidae). [19] 31: 99-107, ill.

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SPECIAL NOTICES.—Husain, Baweja, Mathur, Ahmed & Bhatia.—Studies in Schistocerca gregaria. Colour changes and sexual behaviour in desexualized S. gregaria adults. Pigmentation and physical exertion. Influence of temperature in the intensity and extent of black pattern in the desert locust hoppers bred crowded. Factors determining the movement of vermiform larvae. [Ind. Jour. Agr. Sci.] 6: 586-671, ill.

GENERAL CATALOGUE OF THE HEMIPTERA. G. Horváth, General Editor, H. M. Parshley, Managing Editor. Fascicle IV Fulgoroidea, Part 2 Cixiidae by Z. P. METCALF, D. Sc., College of Agriculture and Engineering of the University of North Carolina. Published by Smith College, Northampton, Mass., U.S.A. 1936. 269 pages. Price $2.00.—Earlier numbers of this catalogue, beginning with Fasc. I, 1927, have been noticed in previous issues of ENTOMOLOGICAL NEWS. This part "follows the general form of the present series. The family is divided into tribes, and the genera are arranged under the tribes in as near a phylogenetic order as our present knowledge will permit. The species are arranged under the genera in an alphabetic sequence. . . . The species have also been listed under every known combination so that it is possible to find any species without recourse to the index which will be published at the completion of the fascicle, together with the full bibliography." Thus, the species *apicalis* Uhler, in bold face type, appears on page 51 under the genus *Oliarus* and again on page 137, in smaller italics, under the genus *Myndus*. "The classification adopted in this catalogue is the one proposed by Muir in 1925. Muir recognized 90 genera distributed into two tribes. . . . The 786 species of this family are widely distributed in all regions of the world save the extreme Arctic and Antarctic regions. The faunas of Europe, North America, Central America, Hawaiian Islands, Japan, India and New Zealand are fairly well known, but vast regions of the world have hardly been explored." The bibliography of the family as a whole occupies pp. 7-14. The catalogue of genera and species extends from page 14 to page 255. Then follows the generic and specific synonymy, pp. 256-267, an index of names proposed, p. 268, and an index of genera and higher groups, pp. 268-9. The type is clear, the paper heavy, but not glazed. Dr. Metcalf's catalogue must surely prove to be most helpful to all investigating this group of insects. P. P. CALVERT.

Special ceremonies in honor of Prof. T. H. Morgan, whose work in genetics has been so largely based on *Drosophila*, were planned by the University of Kentucky for his seventieth birthday on Sept. 25, 1936. The University gave him his B.S. in 1886 and will present a bronze plaque, to be attached to his birthplace at Lexington, Kentucky, according to *Science* for Aug. 14, 1936.

A Change of Name in Staphylinidae (Coleoptera).

Prof. Ralph Voris, of the State Teachers College, Springfield, Missouri, who has been making a special study of the literature pertaining to the family Staphylinidae, informs me that

the specific name *multipunctatus* of my *Philonthus multipunctatus* (Coleoptera of Indiana, 1910, p. 389; Leng Catalogue, number 4472; Blatchleyana, 1930, no. 25), is a homonym of *Philonthus multipunctatus* Nordman, Symbolae ad. Mon. Staph. 1837. p. 106, 95, which in turn is a synonym of *Staphylinus multipunctatus* Mannerheim, Brachelytra, 1830, 31, 79.

I therefore herewith change the name of my species to *Philonthus kessleri* Blatch. This nome is a tribute to Miss Isadora Kessler, who for thirty-nine years has been my secretary and stenographer, who has typed from my long-hand hieroglyphics (which when cold she can read much better than I), the greater part of 14 of my 16 Indiana State Geological Reports (300 to 1700 pages each); my four manuals on insects, my seven Nature books and all my miscellaneous publications (Nos. 79 to 197 of my Bibliography in "Blatchleyana"). She also wrote most of the labels for my insects and to her I have dictated the thousands of letters I have necessarily written from 1897 to 1936. But for her sympathetic, conscientious and efficient aid my work would have fallen far short of what I have accomplished.

W. S. BLATCHLEY.

OBITUARY

DR. JUSTUS WATSON FOLSOM, well known for his papers on the development and taxonomy of the Collembola, died at the infirmary at Vicksburg, Mississipi, on September 24, 1936, after an illness of several weeks following heart attacks, according to an obituary notice in *Science* for October 16, 1936. The same source adds that he was born at Cambridge, Massachusetts, September 2, 1871, received the B. S. in 1895, and D. Sc. in 1899 from Harvard, was professor of natural science at Antioch College, Yellow Springs, Ohio, 1899-1900, instructor and assistant professor of entomology at the University of Illinois, 1900-1923, and entomologist in the Division of Cotton Insect Investigations, Bureau of Entomology and Plant Quarantine, United States Department of Agriculture, at Tallulah, Louisiana, 1925 to the time of his death. One of his best known papers was *The Develolpment of the Mouth-parts of Anurida maritima* of 1900, in which he advocated the necessity of recognizing "the superlingual segment as equivalent in morphological value to the other primary [head] somites." His excellent text book *Entomology with reference to its ecological aspects*, in four editions, (1906, 1913, 1923, 1934) has been successively reviewed in the NEWS.

EXCHANGES

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These notices are continued as long as our limited space will allow; the new ones are added at the end of the column, and, only when necessary those at the top (being longest in) are discontinued.

Wanted—Dr. Karl Eller of the Zoological Institute, of the University of Munich, who is at present engaged in a critical study of the races of **Papilio machaon** and related species, particularly desires to secure for study, as loans or otherwise, material of the American representatives of this group. To be of service to him material must bear exact localities, altitudes when possible, and dates of capture. Dr. Eller has largely completed his work in the Old World forms and requests the cooperation of American students so that his investigations may be of broadly comprehensive character.

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